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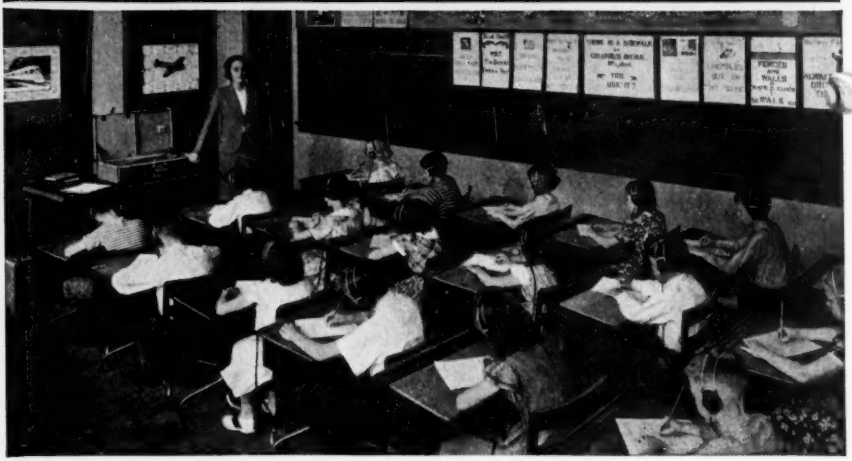

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THE JOURNAL OF SCHOOL HEALTH

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Vol. XII MAY, 1942 No. 5

COORDINATION OF SCHOOL HEALTH INSTRUCTION AND SCHOOL HEALTH SERVICES*

By JOHN F. KENDRICK, M.D.

Rockefeller Foundation Staff, Raleigh, N. C.

In formulating a health program intended to meet the needs of either urban or rural schools, thought must be given not only to the content of the program, but also to its administration. Probably no exception will be taken to the statement that such a program should contain at least the several basic fundamentals listed below if its application is expected to meet with success. These are: health instruction, health service, physical education, and health supervision, including an environment conducive to healthful living. In practical application, every phase of the program must be permeated with educational values, and must be identified with the problems of the individual and those of the community of which he is a member. Moreover, the administration of these basic services requires coordination; that is, there must be harmonious adjustment of the activities of all those participating in the program. This implies responsibility on the part of more than one department or organization, and that there shall exist a state of coordination implimented by positive cooperation.

Examination of the problems of school health reveals that the health department and the schools are the public agencies most concerned. Furthermore, state laws generally assign to their respective health departments the responsibility of safeguarding the public health. In most states this legal responsibility, certainly in so far as *school* health is concerned, is shared with the public school authorities. In whatever department responsibility for the school health program may have been vested by legislative enactment, however, practical considerations seem to indicate that effective application demands joint action on the part of the schools and the health de-

* Read before the Southern Medical Association, at St. Louis, Mo., October, 1941.

partment. The importance that school administrators attach to health is reflected in the fact that it appears as No. 1 among the "Seven Cardinal Objectives of Secondary Education." Health should be placed among the important objectives of the school authorities, but several important factors indicate lack of wisdom and poor economy in expecting the public schools to conduct a separate and complete health program for a particular age-group of the population. In the first place, schools generally lack funds to employ the necessary qualified personnel to provide adequate health services for the school population; secondly, the school could assume only part-time responsibility, since the child is under the jurisdiction of the school only about one-fourth of the time in the one hundred eighty days that the schools are in session. This means actually that the school could not exercise jurisdiction over the child for more than about one-eighth of the child's time during the course of the calendar year. Thirdly, educators are not equipped, either by training or experience, to assume the responsibility of administering highly specialized medical and public health programs. Hence, were they to attempt this, they would be placed in the position of neither being able critically to evaluate and strengthen the existing services nor would they be able to exercise the forceful leadership that would be expected of them in the attainment of more effective and complete programs for the future. Fourthly, one of the important functions of the school is to bring the child in touch with the resources of the community, to interpret the meaning and values of health service to the child and his parents, and to help him find ways and means of securing needed services through existing community facilities. The school should help parent and child to secure medical and health services, but it is not the school's function to provide these services. Mr. Neff* expresses it this way: "It seems to be an accepted philosophy that the role of the school is to educate, not merely the child but also the parent, and more than that, the community, to the end that the child, the parent, and the community can enjoy a maximum of usefulness and satisfaction, and that the primary object in education as applied to the child is to prepare him for the day when he must meet his own responsibilities and provide his own necessities. Since the maintenance of health and the securing of medical care are the responsibility of the individual, it would seem to be unsound educational practice to teach a child to depend upon school clinics, school nurses, and school doc-

* Neff, Louis J., Medical Resources For the Care of School Children, Journal of School Health, Dec., 1939; Vol. IX, No. 10.

tors rather than to teach him how to find such services in his own community, where they will be available to him when he grows up." And, fifthly, it would appear to be unwise to divorce children from the jurisdiction of the health department at the very time they could best be taught to appreciate its services and to become its enlightened and active future supporters.

Public school systems were established to promote and to conduct educational procedures which give promise of safeguarding the welfare of the individual during the periods of childhood and adolescence, of fitting him to exercise intelligent supervision of his own well-being as an adult, and of participating as an enlightened citizen in the welfare of his community. The public health department, on the other hand, is an organization, the function of which is to exercise protective supervision of the health of all age-groups, beginning with or even before the conception of the individual. Its duty is that of protecting and promoting the health of the child both in school and out of school, which responsibility no school organization alone would be in position to assume. Public health personnel are usually experts, trained and experienced in the fields of work to which they are assigned, and most of them are willing and anxious to integrate their activities with the health instruction undertaken in the schools.

Health instruction has been defined as "That organization of learning experiences which contribute to the development of favorable health knowledge, attitudes, and practices"; whereas, health service is the term frequently used to cover the protective, corrective, and promotional measures adopted by the school and other responsible health agencies to maintain and improve the health of children. Thus, since health education is acquired directly through health instruction and indirectly by being exposed to certain health experiences; and, since the fundamental purpose of the schools is to teach, and that of the health department is to render protective service, it seems that the two, working together, would constitute a splendid team for the planning, developing, and carrying out of our school health program. In other words, what we call here *the School Health Program,* consisting as it does of health instruction, health services, physical education, and health supervision, envisages the process of health education. Moreover, the potential forces necessary for effectively administring a well coordinated program are to be found in our public school and public health departments. Both have vital interests in the health and welfare of every child in the population, and each offers services which contribute to the ob-

jectives of the other. But the advantages accruing from such a cooperative enterprise do not end when the child passes out of the public schools. If the school health program has been carefully conceived and wisely administered, the health and education departments reap a rich reward in the cooperation and support of adults, who, as children, learned the value of their services.

Assuming, then, that there are features of the school health program that can best be performed by the schools, others that can best be performed by the health personnel, and that through teamwork they could execute such a program effectively, how can coordination of the program on a statewide basis be accomplished? The motivating force essential for the establishment of machinery to coordinate the activities of all those who are to participate in the school health program must be a mutual desire and a degree of determination on the part of the state directors of health and public instruction. The initiative may be taken by the head of either of these departments, but before much progress can be made there must be a common understanding. Once this stage is reached through pertinent discussions between the directors and with members of their respective staffs, conferences frequently follow which lead to the preparation of a proposed program. The provisions of these programs and the ways in which they are administered vary. But, as an example of one method of approaching this problem of coordination, it might be appropriate for me to discuss, briefly, developments in North Carolina, with which I have been closely identified.

The North Carolina plan involved the setting-up of what is now the State School Health Coordinating Service to represent the interests of the departments of health and education and to be jointly responsible to them. The coordinating agency consists of an advisory committee and a full-time operating staff, the latter under the direction of a State Coordinator of school health education and school health services. The advisory committee is composed of two ex-officio members, representing the State Department of Education and the State Department of Health, respectively, and three appointive members representing, respectively, the State Medical Society, the State Teachers Training Institutions, and Physical Education interests. The functions of this committee are to act in an advisory capacity to the Coordinator, and its individual members are expected to guide and assist him as technical experts in the formulation and execution of a unified school health program.

By way of selecting a corordinator whose training and exper-

ience would enable him to visualize the health program from the point of view of both the educator and the health administrator, a person possessing the following qualifications was sought: a physician from a Grade A medical school, preferably with specialized training in public health and physical education as evidenced by his holding (1) a degree in public health from a university of recognized standing which represents at least one year of postgraduate training; or, having rendered outstanding service as a school physician while employed on a full-time basis; and (2) having majored in physical education when obtaining his bachelor's degree from a college or university of acceptable scholastic standing; or having taken equivalent postgraduate training in physical education; or having rendered outstanding service in teaching physical education. If the qualifications of the coordinator chosen fell short of these requirements in some respects, it is obvious that the performance of this service was expected to be of a high order. The other members of the coordinating staff are a nutritionist, a physical education adviser and an assistant, five public health nurses, a Negro physician, trained in public health, and a Negro health education worker.

The scope of the activities being undertaken by the coordinating service does not include the performance of any of the duties for which local education or health personnel are responsible. The service rather seeks to promote the following four principal objectives: (1) adequate provisions in the teacher-training institutions to train teachers to teach health, and the provision of facilities for giving some health training to in-service teachers in the public schools; (2) provision in elementary and high schools for the teaching of scientific facts concerning health and practical methods of applying this knowledge in the everyday lives of the pupils—this to include both subjective and objective teaching—the aim being to have pupils "practice today what they learned yesterday, with the hope that it will become a habit tomorrow;" (3) the application of protective health measures by the health personnel in such a way as to take advantage of every opportunity for objective teaching; and (4) extension of these teachings and practices into the homes of the pupils through cooperation with parents and with civic organizations in the various communities. In the realization of these aims, the purpose of the coordinating agency is to help mobilize existing facilities which, through careful planning, will be able to execute an effective program with the available local personnel. The attitude of the State School Health Coordinating

Service is that the school health program constitutes a cooperative enterprise, and the establishment of a unified, well integrated program that will meet the essential needs of various localities is a desideratum of prime importance. Moreover, we feel that in developing the program the *experimental* approach should be fully utilized, and that all of the cooperating agencies should participate in the building-up process, due consideration always being given to local problems and conditions.

* * * * *

Immunization Survey of Children Under Ten Years of Age.—The Indiana State Board of Health has been conducting a statewide immunization survey to determine the number of children under 10 years of age in the state who have been given protective measures against smallpox and diphtheria. According to a preliminary report, 14,547 children in this age group were included in the survey. Of the 5,840 children under 6 years of age included in the total group, 19 per cent had diphtheria immunization and 9 per cent were vaccinated against smallpox. Only 34 per cent of the children in the group under 10 years had been immunized against diphtheria, and 23 per cent had been given smallpox vaccinations. It is estimated that in Indiana there are about 600,000 children in this age group. So far the study emphasizes the need for more attention in the pre-school age groups. Stress is placed on the fact that in 1940 about one-third of all diphtheria deaths in the state were among children below 5 years of age. Journal of the American Medical Association, March 7, 1942, p. 828.

* * * * *

Tuberculosis.—A slight increase in tuberculosis has been observed. A similar increase occurred in the last great war. Curiously, the increase has been most noticeable in women between the ages of 15 and 25. The death rate per million from pulmonary tuberculosis in this group rose from 702 in 1939 to 881 in 1940, while the death rate at all ages rose from 535 to 587. Journal of the American Medical Association, March 7, 1942, p. 832.

SCHOOL HEALTH ADMINISTRATION—AN OVERVIEW*

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The title of this paper is "School Health Administration—an Overview." We take it that an Overview means a kind of summary, a hitting of the high points, a sorting of pertinent problems, a fitting together of the pieces, in fact, an arm-chair philosophizing. What the field of school health administration needs is fewer papers like this and more reporting on real accomplishment, on a truth verified beyond a doubt, on a scientific fact well established.

It is assumed that this audience has clearly in mind the connotations of "school health," but the word "administration" bears so many meanings that it semed wise at the start to outline our conception of what is included in administration.

Some form of administrative procedure is essential to all human endeavor where more than one individual is involved in working toward a common objective. Certainly in any group endeavor as complicated as rendering a satisfactory school health service, involving so many different professions, and covering such a wide field of activities, the importance of administrative principles cannot be denied.

There are many definitions of administration, but Luther Gulick of Columbia probably has outlined the most satisfactory framework for this discussion. Gulick lists seven processes involved in administration, namely; planning, organizing, staffing, directing, coordinating, reporting, budgeting. It seems worthwhile to build this brief paper around these seven processes as they apply to school health service.

Planning is an essential of good administration, and often seems conspicuous by its absence in the modern school health program. Planning implies a capacity for foresight. Foresight is nothing more than projected hindsight. Hindsight depends upon constant analysis, evaluation, and appraisal of what *has been* accomplished. Only within the past few years have efforts been made to analyze critically the school health program, so that hind-

* Presented before the American School Health Association, Atlantic City, October 13, 1941.

sight could be cleared for good foresight, and eventually good planning. Year after year the same things have been done, in the same way, and the same facts entered on the same records by the same people. Too much school health service has been based either on traditional procedure, or has been a direct copy of some procedure which appeared successful in some other jurisdiction. Imitation and rote have been the guides of our school health work, in place of analysis and cerebration. If in the future, school health work is to justify itself on anything but an emotional basis, considerable better planning will have to be evidenced than in the past.

The National Education Association and the American Medical Association have recently published a bulletin — "Suggested School Health Policies." Planning for a program as outlined in this pamphlet will, of necessity, require the administrator's review or overview of the program. Even though the eight points are thought to be well covered in a good program, certain surprising facts may come to light in checking them.

1. For the Healthful Environment:
   Does the school budget allow for adequate provision of soap and towels at all times, and if so, are supplies replenished when necessary?
   Do the school physicians say that this is essential or not?
   How many children are seen "mouthing" the bubblers when they drink?
   Are seats adjusted as carefully as expected?
   Are custodians breaking techniques without knowing they are doing so?
   Is the physician aware of his responsibilities in the sanitary inspection of buildings?
   Are lunch hours hurried because of school program?
   Is mental hygiene considered only in the aspect of psychiatric treatment?
2. In Accident Prevention and First Aid:
   Are there definite and written standing orders for nurses or teachers who have to take care of accidents and sudden illness?
   Is the question of transportation clearly defined and understood?
3. In the Program for the Prevention and Control of Communicable Disease:
   Are there written instructions for teachers so they may know what to look for in their daily observation?

Is there a system for permanent recording of children's visits to the doctor or nurse after the teacher's morning inspection? Is attendance overemphasized or are parents urged to keep at home children with beginning illness?

Is a child with suspicious communicable disease isolated at school and then sent home in the bus with other children?

Are overcrowded school buses a hazard in your community?

4. Is the Program for Health Instruction Either Correlated or Specific:

   How much actual health instruction does the teacher think she is teaching?

   What are her special problems and what are her wants in reference to a check list or guide for grade level instruction?

   Are health service incidents actually utilized as a basis for health teaching?

5. In the Plan for Health Examination:

   Is there a specific reason for the present plan of examinations and number that are to be done in an hour?

   Is it adequate or over-adequate to meet needs?

   Is it used as a teaching procedure?

   Do the doctors know what is expected of them?

   Are they on time so that the examinations are conducted with as little interference as possible with other school procedures?

6. For Follow-up of Specific Needs:

   Are parents invited to be present at examinations or asked to come later to confer with principal, teacher or nurse?

   Are home visits made with respect to an isolated situation or to the total family situation?

   Are teacher-nurse conferences planned by method and outlined procedure?

7. In Reference to Handicapped Children and Special Education Problems:

   Are all organic heart cases known and listed?

   Are vision and hearing tests checked for accuracy, and improvements made accordingly?

   Do the parents realize the importance of adequate medical supervision in visual and hearing handicaps, and are the teachers notified of the physicians recommendations?

Do the schools accept a general statement from a physician as sufficient grounds for "exclusion from gymnasium" or do they require specific instructions as to what modified exercises may be allowed or if the pupil should have bed rest during the "gym" period.

8. What encouragement is given for in-service training, and is there a plan for remunerative recompense in accordance with special study and achievement?

Organizing is essential to good administration. If the enterprize is sufficiently complex someone must assume direction, and individuals best fitted for specific tasks must be selected and assigned those tasks. Supplies and equipment must be procured. Any discussion of the organization of the school health program can easily deteriorate into that time honored discussion of whether the school health service should be organized under the Health Department or the Department of Education. In cities free from political interference, with a stable health department, well manned by trained personnel, and an adequate budget, it seems to us that the health department is the logical administrative unit to handle the school health service, but this depends upon local circumstances. We have no more right to say that the Health Department is the only place where the school health service can be administered successfully than the Department of Education can claim that it is the only logical governmental unit capable of administering a good school health program.

It does seem that health instruction is more readily correlated with health service when the entire administration is under the Department of Education. On the other hand—in nursing particularly—a generalized service is recommended by the NOPHN as being the most economical and efficient community service. It doesn't matter who pays as long as responsible supervision is provided for the prenatal, infant, and preschool groups which are as important and perhaps even more important than specialized school service.

In deciding this question, again one should depend upon a cold, factual analysis of the local situation, and place the school health service in whatever organization it would seem was capable of providing good service for the community at a reasonable cost over a long term.

Staffing. Here is one of the crucial points of good administration. If a good staff, well trained, experienced, willing to work together can be assembled many of the administrator's headaches

are over. For some unknown reason the staffing of a school health service usually has been accomplished along the lines of least resistance, and local doctors have been employed on a part-time basis to carry on the actual medical procedures. On the whole, these medical men have been conscientious in doing what was asked of them in making routine physical examinations, but as far as making an effort to understand the ultimate goal of school health work, suggest methods of improvement, determine needs and lay plans to meet thse needs, the part-time school doctor has not shown the interest of the professional school physician. Despite the efforts of the men identified with the American School Health Association, only a small number of physicians employed to render school health service can be said to belong to the profession of school physicians at the present time.

The public health nurse in schools is another problem in staffing. While credit must be given to those nurses who have devoted their lives to improvement of school health service, they are few and far between as compared with the number of nurses who accept appointments without preparation, who make no special effort to prepare themselves by further training or study. In staffing the school health service, employing departments must be convinced that the work demands individuals adequately trained in public health as well as in nursing or in medicine.

As already indicated when individuals work in a group, one person must be assigned the responsibility for *direction.* The individual who assumes this responsibility must be a master in theory as well as in practice of the technical phases of the service he is directing. There are those who believe that if a man is a successful administrator he can administer any activity without a thorough knowledge of the techniques involved. For example; an experienced administrator would be equally successful as a university president, a superintendent of schools, a manager of an industry, the chief-of-staff of the army, the manager of a movie star or a prize-fight promoter. There is little if any evidence to support this idea, and it would seem that any attempt to direct a service without a thorough knowledge of the techniques involved would eventuate in the ultimate deterioration of that service.

Coordination is a much used and abused word, but the processes implied by the word are essential for any administrative undertaking, and particularly in school health service. In order to be really successful, the abilities and knowledges of many professional groups are needed: e.g., the principal, the classroom

teacher, the physician, the nurse, the dentist, the dental hygienist, the health educator, the physical educator, the guidance teacher, the home economics instructor, the building custodian, and various outside agencies. Unless these various professional groups are familiar with the objectives of the program, and are willing to work together toward the realization of these objectives, the service cannot hope to accomplish what it should, and in the long run the recipients of the service, the pupils, suffer. One of us has previously published a description of a coordinating committee serving a school and health department in a small American city. This committee continues to function usefully. Whether such a committee is used or some other device utilized it is important that some recognized procedure be established so that the local representatives of the various professions interested in the school health service can exchange their viewpoints and weave into the whole fabric the contribution of their particular profession.

Reports—written and verbal, both to and from the administrator—are essential to program planning. Reports to the administrator provide information by which he may evaluate and analyze the service in relation to needs, and form a basis for making changes in policies and program. Communications to the personnel, citing current information or giving clear and easily understood instruction is a part of good administration in developing the interest and encouraging the participation of health workers. Manuals and bulletins must be revised in line with current changes and technical terms avoided. Records are paramount, but as Doctor Dorothy Nyswander recently pointed out, these should not become "sacred cows." Just because an item was placed on a record at one time for a specific purpose is no reason that it must remain there for all eternity. Again, clean cut and regular analysis is necessary rather than rule of thumb. The use made of records indicates their value, and if they are worth writing and keeping they should be filed so as to be readily available when wanted.

Budgeting is the final item in Gulick's list of seven processes involved in administration. On the whole, school health programs enjoy fairly adequate financial support. All of us who are interested in promoting our pet objectives could always use more money. The question here is not so much the amount of money needed or wanted, but how well the available money is spent. If one were forced to justify expenditures for school health services on an evaluation of the health of school children the nation over—the children of the industrial areas and the agricultural sections, the

health of the privileged and the under-privileged, the rich and the poor, the brilliant and dull—one has the unescapable impression that the justification would be flimsy. Until the majority of school health workers, not just a few of the leaders, have learned to think about what they are doing, evaluate each procedure carefully, be reasonably certain that what they do each day fits in with what they wish to accomplish in the end, have learned to work with others also interested in their objectives, and can produce factual data to prove that they are progressing toward their proclaimed goals, it seems we are all in a rather weak position to seek more financial support from tax funds.

"School Health Administration—An Overview" may well be used as a slogan to apply periodically to any program regardless of extent or size. Only as the service is studied, evaluated, and democratically administered in relation to needs and resources, does it perform its function in working for improved individual and community health. The seven administration procedures as outlined here, when applied to the eight "Suggested School Health Policies," offer a specific medium for an administrative "Overview" of a school health program.

* * * * *

Recreation or Physiological Development. — "But the whole argument for omitting in the high school and college those activities which cannot be carried on later has been without any recognition of the physiological development of the individual." Gertrude E. Moulton, M.D., Director of Physical Education for Women, Oberlin College, in the Journal of Health and Physical Education, February, 1942.

* * * * *

Nursery Education,—Dr. Richard A. Bolt of the Cleveland Child Health Association led a seminar group on "Providing for Healthful Living of the Pre-school Child" at the recent meeting of the National Association for Nursery Education in Detroit. In addition to verbal discussion the group toured the city of Detroit to investigate conditions affecting child health.

Physical well-being was considered throughout the conference as an important part of the plan laid toward carrying out the general theme: "Life, Liberty and Happiness for Children Now." Outgrowth of the conference was the creation of a planning commission to direct attention to the importance of considering the well-being of young children in all defense planning. Mrs. Rose Alschuler of Chicago, author and staff member of Winnetka schools, will head the commission.

COMMUNITY PLANNING IN SCHOOL HEALTH EDUCATION*

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"Confession is good for the soul," they say. Since the evaluation of a procedure gives the public health worker a chance to confess, let us substitute the word "evaluation" for "confession" in our quotation. The purpose of this paper is to discuss the application of the principles of community planning in relation to school health education. The following remarks cannot be construed as an appraisal of community planning efforts as indicated by a strict interpretation of the term "evaluation." Rather, an attempt will be made to describe some of the ways our verbosity about community planning for health is being translated into action.

From the interchange of ideas and experiences there evolves a set of common objectives and a more sympathetic understanding of the various aspects of the problem at hand. Such objectives and understandings become the basis for the formulation of tentative plans by the groups. This type of planning is a vital prerequisite to the success of any health education program. We believe that health is important to education and we start with the premise that all experiences have an effect upon the health of the child. We accept the fact that the optimal health development of the child will more nearly approach the ideal through the cooperative efforts of parents, physicians, dentists, nurses, public health personnel, clergymen, teachers, and other school employees, together with all other specialists who are concerned. The program for promotion of pupil health does not belong to *any one* group or organization, and only through cooperative planning can we avoid the disentegrating effect upon the child of a departmentalized program.

In this hypothical case, the program is being initiated by the school in relation to problems about vision which the school found and must solve in cooperation with others. We may next ask ourselves about the relationship of this school committee to the community group. Where there already exists a community council or civic organization, there should be representation of the school committee in the community organization. If there is no organ-

* Presented before the American School Health Association at Atlantic City, N. J., October 13, 1941.

ization of this type, the initiative for creating one can come from the school. In this way the problems of the one committee may be brought to the other, and mutual assistance should result.

I should like to describe a situation which I believe illustrates the principles alluded to above. There is little in this example that is new or original, but I hope it may be added to the list of those from other communities whose philosophy is "let's get together and tackle our problems." In order to understand how our community planning is being approached, perhaps, I should give a brief description of the set-up of The Tuberculosis Institute of Chicago and Cook County, a private organization, and tell how it functions in Cook County outside of Chicago. The Institute is unique in its program. Until a little over a year ago, there was no organized county health department, and the 15 rural public health nurses were located in the Cook County Bureau of Public Welfare where they served in communities under 5,000 population. Therefore, the Institute's 30 public health nurses were and are now distributed throughout the county towns with 5,000 or more population, not served by any other health organization. Where these nurses are located, they are in charge of the local Health Center which is affiliated with the Institute in order to carry on tuberculosis case finding and education and a generalized public health nursing program. Now, that the Cook County Public Health Unit has been established, the Institute works closely with the Unit.

Through the local Health Centers and their lay committees and in cooperation with the Cook County Public Health Unit, the Institute is sponsoring tuberculin testing programs in all grades in most of the schools in Cook County. For the coming year, the testing schedule has been made so that the date for each township high school is the focal point around which the dates are set for the small communities whose students go to that particular high school. In this way the plans for the public health education of each community can be made in advance and carried out at the proper time preceding the testing program. Parents of children of all ages as well as the general public can be reached through these central plans.

Since all of the facilities and personnel of the Institute are available to the schools, local health officials, and other agencies in the Towns in Cook County, I, as a health educator on this staff, work closely with the local groups in the capacity of a consultant. Since one of our chief health services to the community is the tuberculin testing program in schools, we find that this "school initiated

problem"[1] opens the way for many health education plans that necessitate community planning.

For our present consideration, let us discuss the plans for Area I which includes Cicero, Berwyn, Stickney, and Lyons, Illinois. In Cicero we have the J. Sterling Morton Senior High School and Junior College which draws students from the towns listed above. The testing dates for all schools in Area I are in October and November. In order to set the dates for the testing, meetings were held in each town with the superintendent of schools, the school nurse, the health officer or school physician, and a representative from the Institute. At the same time, tentative dates were arranged for teachers' meetings in the various school systems when the medical director of the Institute will give a lecture on tuberculosis and the health educator will discuss health instructional materials.

To be really effective, preliminary plans should be made early with each community group. In Cicero, plans were first made with the J. Sterling Morton High School and Junior College. A representative group was called together, composed of the superintendent, deans of girls and boys, school physician and nurse, advisor to school newspaper, heads of the departments of home economics, English, science, physical education, the nurse from the Cicero Health Center, representatives from the Institute, and from the Parent Teacher Association. At this meeting tentative plans were discussed for the education that is to precede the tuberculin testing. A source unit on tuberculosis prepared by the Institute staff in cooperation with a group of teachers, "A Guide for Teachers" suggesting various ways for different departments to contribute, sample posters, pamphlets, description of films, etc., were displayed and discussed. Then a meeting was held with representatives of local clubs and agencies, the same Parent Teacher Association representatives who attended the faculty committee meeting, the president of the Parent Teacher Council, and the Health Center nurse and lay committee chairman. At this meeting the following plans for public health education were made, and have been partly carried out:

1. Provision was made for a speaker to appear on the program of the sixth district Women's Clubs which meets in Cicero on November 5th. There will be approximately 250 members at-

1. *Community Organization for Health Education.*
A Committee report.—The Committee on Community organization for Health Education. A. P. H. A.—1941, New York.

tending the meeting. A brief talk will be given to acquaint the members with the plans and purpose of the tuberculosis prevention program. A specially prepared flyer addressed to club members will be distributed with the program by the ushers. An exhibit will be placed in the hall where the club meeting will be held, and a supply of literature will be available for those who wish it.

2. The plan for addressing the Parent-Teacher Association Council was carried out by a speaker who explained the program and announced the testing dates. It was decided by the Council at this time that each Parent-Teacher Association would set aside time during its October or early November meeting for a program on tuberculosis. On this program will be a physician as a speaker. A film on tuberculosis will be shown, and literature will be made available. A list of physicians in Area I is being compiled by the Illinois Medical Society so that as many local physicians as possible can be used. Each one will be written a special letter and will be sent a copy of the bulletins "Diagnostic Standards" and "Chest X-ray Interpretation" written especially for physicians. The superintendent of the high school will make a brief talk at the first meeting of the high school Parent-Teacher Association meeting, giving local statistics on tuberculosis and emphasizing the value of the program.

3. The part-time school physician of the J. Sterling Morton High School is already arranging meetings in two hospitals in this area so that most of the physicians can be reached in these meetings on tuberculosis. Medical films will be shown and literature will be on exhibit so that physicians who wish free copies for their offices may order them. In addition to this measure, the health officer of the Cicero Health Department is sending a personal letter to all Cicero physicians enclosing two copies of special literature prepared for physicians' use.

4. Special letters will be sent to all clergymen explaining the program and asking for their cooperation. If they agree to the requests made in the letter, a short announcement will be sent to be read from the pulpit on the Sunday before request slips are sent home to parents; posters for the church bulletin board will be supplied; and literature for the congregation to take home will be placed in a convenient place in the entry hall. For those churches which have a bulletin, a short prepared article will be sent to be carried in this bulletin.

5. A short motion picture entitled "Spots" with a running time of about 1½ minutes has already been booked by the local

theaters for a week each. It will be shown during weeks previous to the testing program.

6. The Cicero Industrial Safety Program will be held in November in the Auditorium of the high school. About 1,000 people usually attend. Many of these are the parents of children in this area. Time is being given on this program for a speaker to tell about the tuberculosis prevention program. A flyer, especially prepared for this meeting, will be distributed and literature will be made available.

7. Dates have been set with the men's luncheon clubs—Rotary, Lions, and Kiwanis in their October meetings for the physician member of the club to speak on the value of the tuberculin testing program.

8. Letters will be sent to all of the industries in this area, explaining the school tuberculin testing program, and asking the manager to post enclosed bulletin board announcements about the school testing program. The Institute's "Man-Power" and "Health Flashes" which are furnished free to industries will feature tuberculosis prevention in the October issue.

9. A radio street quiz program will be arranged with the local radio station in cooperation with the high school speech classes.

10. Posters will be placed in store windows by the Boy Scouts.

11. Local newspaper publicity will be generously given.

This list, of course, by no means exhausts the channels for health education, but it was the decision of the group that the above activities were sufficient for their first trial.

At the second meeting of the J. Sterling Morton High School and Junior College Faculty Committee, the plans formulated by the lay committee were presented so that each group was informed of the other's plans. At this meeting final plans for the school health education program were made, films were booked by the Visual Aids Department, and references materials were ordered. In all plans worked out with the school committee, pupil activities were designed to contribute to public health education where possible. By following this principle, we can really give students an opportunity not only to learn by doing, but actually to develop the habit of contributing their part to their community.

In Lyons, Berwyn, and Stickney, the same general procedures were followed, and those of the foregoing plans that could be adapted to each community were selected. Local committees were

used in each town, and the private agency worked hand in hand with the health department and the schools. In each town the approach was slightly different. In Lyons, the Civic Association was organized recently to tackle the problems confronting their community relating not only to health but to safety, recreation, etc. This association is cooperating with the Lyons Health Center Lay Committee to sponsor a community night program devoted to the problem of tuberculosis.

Just as the problem of tuberculosis control serves as the impetus for community planning, so can other health service procedures stimulate community planning. Since the purpose of this paper is to discuss the application of the principles of community planning, I shall not go into a discussion of these principles. I should like to say in passing that we have found that where the staff of the private organization worked cooperatively with the members of other groups so that the initial plans were formulated by all; where there was a spirit of give and take; where vested interests were sublimated, real success resulted; and we all had a good time planning together.

If community planning be "the regulation of the physical features of the community for the encouragement of the fullest and best life of the members of the community,"[2] then the private organizations, the official public health agencies, and the schools, not only have the privilege but the responsibility of joining hands and working together for the fulfillment of this aim. If "evaluation is good for the soul," then *action* in the light of this evaluation is better. Let's have more action for community planning in school health education!

* * * * *

Graduate Study: Through its Department of Public Health, the Massachusetts Institute of Technology is offering this summer (June 8-July 24 and July 27-September 12) numerous courses in the field of Public Health. To the readers of this Journal probably the most interesting are those in Health Education such as: Health Department Practice, Public Health Engineering, Communicable Diseases, Personal Hygiene and Nutrition, Health Education, and various electives.

2. *Planning for Public Health.* Beard J. Howard, M.D., Universit of Illinois, Urbana—Bulletin, Vol. 37, No. 2, 1939.

EXOGENOUS REINFECTION IN TUBERCULOSIS*

EMIL BOGEN, M.D.
Olive View, California.

The altered reaction which follows primary infection by the tubercle bacillus accounts for many of the epidemiological and clinical manifestations of this disease. Some writers have gone to the extreme of insisting that such sensitization confers an absolute immunity, and that exogenous reinfection is, accordingly, impossible. Out of 1320 tuberculin positive student nurses in New York city, only 6 developed tuberculous lesions as compared with 34 such instances among 910 non-reactors. From this observation, Dr. Leopold Brahdy has drawn the following conclusions. "Doctors, nurses, attendants and students who are tuberculin positive need not fear tuberculosis because of their work. A tuberculous patient is not a source of infection for adults of his family who are tuberculin-positive reactors. . . . A program for the prevention of tuberculosis among nurses or any other group must start *and also end* with prevention of infection of tuberculin non-reactors."[1]

This contention, if true, would mean that much of our most promising activities in the control of tuberculosis should be abandoned. It is, however, just as erroneous as is the diametrically opposed belief that primary infection is always benign, and that it is only the reinfective form of the disease which is to be feared.[2]

Dr. Brahdy's data indicates that fresh tuberculous lesions were more often observed in his previously uninfected nurses than in those already infected. Other workers have also observed this lower incidence of disease among positive reactors than among non-reactors, although this has not been a uniform rule. But this does not signify that the tuberculosis that does affect the positive reactors even in lower incidence, is not related to external exposure to reinfection.

Animal experimentation reveals that the protective effect of vaccination against tuberculosis is only relative, and that it may be overcome by sufficient virulent superinfection. The occurrence of tuberculosis in some of the children who had been vaccinated with BCG, although in lesser number than in unvaccinated controls, shows that this may also occur in man. Cases of tuberculosis in

1. Brahdy, L. Immunity and Positive Tuberculin Reaction. *American Journal of Public Health*, October, 1941.
2. Stewart, C. A. *Journal of the A. M. A.* 100:1077 April 8, 1933.

which both human and bovine type organisms have been isolated demonstrate the failure of one infection to confer absolute immunity against another. Numerous epidemiological surveys emphasize the danger of tuberculous disease among infants, children, and even adults resulting from long exposure to repeated infection with tubercle bacilli.

The campaign against tuberculosis has been proceeding with accelerating velocity in recent years with the greater emphasis on the value of controlling infection, both before and after initial sensitization has occurred. Premature generalizations from inadequate studies should not be allowed to impede the intensification of these activities, so effective in the prevention of infection, disease and death.

Note—*Dr. Brahdy has made a splendid observation with reference to infecting nurses who do not react to tuberculin. Unfortunately, he ignores all of the fine work of the past with reference to reinfections. Indeed, in 1885, Cherrin conducted experiments which showed that tuberculosis and glanders differ from syphilis in that inoculations were successful in individuals previously affected with these diseases but were not successful in syphilis.

"The classical work of Opie more than twenty years ago proved conclusively that reinfections occur from exogenous sources. Our sanatoriums were built largely with the idea of preventing contagious cases of tuberculosis from infecting and almost constantly reinfecting their associates. One must not overlook the fact, also, that persons who are infected with tubercle bacilli may have all the organisms die in their bodies, after which they become nonreactors. These persons should also be prevented from becoming infected.

It seems unfortunate, indeed, that Dr. Brahdy has made such a sweeping statement with reference to the safety of exposure of tuberculin reactors based on so little evidence. If his statements should be generally accepted, the clock of tuberculosis would be set back half a century."

*Contributed by J. A. Myers, M.D., Minneapolis, Minn., Past President National Tuberculosis Association.

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EDITORIAL

Higher and bulkier than ever before looms the urgent need of more and better health and physical education programs in the schools. While the need is great in all grades and at all age levels, it is particularly important as a cornerstone of national defense in the secondary schools and in the colleges.

Upon us rests the great burden of selling the program so effectively that it may be expanded and made more intensive. In many communities, efforts will be made to cut down the health program. Back of this effort are several groups: those who will use the war emergency as an excuse for limiting school expenditures; those who are not convinced that the program is worth what it costs; and the various cultists who would like to get rid of any medical program.

Possibly the larget group is the second. We have failed to sell the program in many particulars. Our whole set-up and emphasis need revision and reorientation. We might divide the present needs into three parts.

First: More persistent follow-up of those found to have physical defects. The recent re-study[1] of the Hagertown, Maryland, records of some fifteen years ago, and the comparison of the defectives

1. "Child Health and the Selective Service Physical Standards" by Antonio Ciocco, Biometrician; Henry Klein, Dental Officer, and Carroll E. Palmer, Past Assistant Surgeon, United States Public Health Service; Public Health Reports, December 12, 1941, p. 2365.

found there in relation to the acceptances and rejections of those same individuals by the draft boards of that area indicates very clearly that it is possible to predict with some accuracy which of those showing physical defects at the school age will grow up into defective adults unless various community agencies — parents, school agencies, family physicians, public clinics where family and private physicians fail—succeed in a much larger proportion of the cases in securing correction of remediable defects. (See page 169 this issue.)

Second: Efforts in the school physical education program to put into effect a more extended and a more vigorous type of activities that will build strength, endurance, stamina, and persistency. Admitting the great value of the social and educational objectives, concomitant with the general educational theory of the last twenty years, it seems clear that the option allowed children and older students to participate in vigorous strength, endurance, and stamina building physical education, or not to participate in such activities, or, in the colleges at least, not to participate in *any* physical education program has resulted in a generation of young men who must devote weeks of their early military service to building sufficient power and stamina—mental as well as physical—so that they are "fit" for intensive military training.

Third: What should be the program of conditioning? Candidly we wonder if any considerable number of us know. One of the reasons for our lack of knowledge is that much of the research in the various school health factors has been unscientific and has been entered without adequate study of the past.

For example: a recent much publicized study of school health activities "rediscovered" some procedures that were routine thirty years ago; one of the highly advertised and much used tests for physical fitness is based on false assumptions, is statistically unsound, and its conclusions lack sound logic.

Going along with the badly needed increase in time, effort, and money, there must be more definite research, looking toward answering these questions—and many others.

What are the weaknesses in our school health services program? How may these be overcome?

What is conditioning? What type of activities will bring it about speedily? How may we measure progress in conditioning? What shall we measure? Shall it be strength, endurance or circulatory and respiratory reaction to physical load? Can we set up measurements applicable to students and men in service in large groups,

without too great expenditure of time and examining personnel?

One difficulty in the way of devising and using adequate research tests on men in service has been the lack of technical skill in the field of physical tests and measurements on the part of high ranking officers in our various military and naval branches. We realize that the urgency of the problem has perhaps stood in way of such studies, but here, as in many other phases of "preparedness," there has been no looking forward and, therefore, no studies have been made by military authority and no proven "best" method devised. The traditional method is largely being used. C. H. K.

ABSTRACTS

Physical Education as Propaganda.—When determing its program of work for 1937-38-39, the Health Organization of the League of Nations decided to include physical eduation.[1] It, therefore proposed the appointment of a Commission on Physical Fitness "to formulate the scientific bases of rational physical education adapted to different ages." In May of 1937 an international group of experts convened in Geneva for the purpose of advising the Health Organization. This Commission on Physical Education had as its chairman Laugier, Professor of Physiology at the Sorbonne. It included in its membership the British Physiologist McSwiney; Dill of the Fatigue Laboratory at Harvard; Hansen, Director of the Institute for the Theoretical Study of Gymnastics, Copenhagen; Wroczynski, former School Medical Inspector at the Ministry of Education, Warsaw; and Col. Bauer of the Swiss National Association of Physical Education. In May 1939 the name of Hernando Ordonez, Director of the Institute of Physical Education, Bogota, was added.[2] In view of the recognized development of physical education for women, Phyllis Spafford, secretary of the Ling Physical Education Association of Great Britain, was also appointed.[3] Just prior to the outbreak of the War, the physiologists Hansen and McSwiney carried out a League-sponsored study tour to determine the contemporary status of physical training on the Continent, which might then serve as a background for the recommendations of the Commission on Physical Fitness.[4]

1. "Report of the Group of Experts of the Commission on Physical Education," *Bull, Health Organization, League of Nations,* 7:609 (August, 1938).
2. Health Organization, League of Nations, Geneva, May 9, 1939.
3. Health Organization, League of Nations, Geneva, Nov. 24, 1939.
4. Hansen, E., and B. A. McSwiney, "Organization D'Hygiene: Rapport sur L'Education Physique," *Travail Humain,* 6:449-464 (December, 1938).

It is instructive to compare these essentially scholarly approaches with the character of the American attack on a common problem, which has been to delegate it to former sport champions whose names are popular with the lay public.[5] Much of the advice given by these fine exponents of championship skill in sport is undoubtedly sound. However, since it has been arrived at by the method of empiricism without rationalism, the danger lies in the wisdom of its application to the population at large. Exercise is a legitimate therapeutic and prophylactic agent of physical medicine, which, however, has potential dangers as well as benefits. This is a property which exercise holds in common with drugs used from time immemorial in the practice of medicine. *When propagandistic advantages, important though they may be, outweigh the foundational value of knowledge,* the technical and scientific leadership of American physical education can hardly escape the challenge to examine into the probable causes of the difference in approach. Have we forgotten that *"knowledge is power,"* and that to be rationally defensible, the assumptions that underlie our contribution to the defense effort must be rooted in fact?

Analysis of the medical aspects of the British experiment shows that fitness was being preached to an unresponsive nation. The Government failed to inculcate any wide realization of the desirability of physical fitness for its own sake. The question which arises is this: is physical fitness ever sufficiently desirable for its own sake to make men willing to sweat and sacrifice, subjecting themselves to the rigorous program of self-control and systematic exercise necessary to attain the trained state? The fact that generations upon generations of men the world over have repeatedly girded their loins *for a cause greater than self* is one of the illuminating revelations of human history. Knowing this, it is curious to observe that the fitness program was aimed primarily at personal gain to be gotten at the cheapest possible cost. To quote, "there was to be no nasty medicine in the form of compulsion." The activities provided would be social and recreative. The pleasant movements of the "Keep-Fit" classes must be so simple and general that newcomers can enter at any time.[6] This was frankly stated to be more important than the evolution of a progressive scheme of developmental exercises. Since the program was voluntary, enjoyment must be the central theme, and the personality of the teacher the

5. Bromley, Dorothy Dunbar, "Keeping Fit the Alice Marble Way: The Program the Tennis Champion Will Carry to the Women of the Country as Part of the Defense Effort," *The New York Times Mag.*, Oct. 5 1941.

6. *Recreation and Physical Training for Girls and Women,* Board of Education Physical Training Series No. 16, H. M. Stationary Office, London, 1937.

pre-eminent consideration. In the correspondence columns of one of the medical weeklies it was concluded that "natural and enjoyable forms of exercise are better for us in every way than drill and physical jerks."[7] This, without a shred of demonstrable evidence, and in the face of the fact that the Scandinavians had long since shown that a physical training program based upon gymnastics can produce a harmonious development of the body. This, in the face of the fact that countless numbers of people find refreshment and pleasure in the rigorous program of voluntary organizations like the German Turnverein and the Czech Sokol!

It was assumed that along with incidental benefits like happiness, a healthy mind, and an upright, self-reliant character, physical fitness could be attained and maintained by the provision of easy, general, social, and recreative exercises. The ponderous organization, the superficiality of objectives, the placement of personality above training, and the lack of critical realism are too familiar for any serious-minded physical educator to escape a sense of professional responsibility for the course being steered.

Why do we know so little of a matter which is of such imminent importance? I would say, in part at least because of the barrier of ignorance that stands between American physical education, American medicine, and its allied biological sciences.

Two groups of Continental scientists stand in a more intimate relation to physical education than is commonly observed in this country.[8] First, those with purely theoretical interests who are mainly physiologists and include many distinguished University teachers. On the other hand, the practical application of scientific knowledge to the problems of the sportsman, has attracted large numbers of young medical practitioners who participate actively in sports.

A congress of sports physicians met in Italy in 1933, France in 1934, and Berlin in 1936. The latter, which coincided with the Olympic Games, attracted fifteen hundred participants from forty different countries.[9] The sport medicine symposium included reports from Switzerland, Italy, Hungary, Japan, Argentine, and Brazil. It is interesting incidentally to note that the Second South American Congress of Sports Physicians which met this year

7. "Food and Exercise," *Lancet*, (April 10, 1937), 882.

8. Karl, Jiri, "Organisace Sportovnich Lekaru v Sousednich Statech a snahy o Organisaci Mezinarodni," Vestnik Ceskych Lekaru, Cis. 24, 1931.

9. Kral, Jiri, "Mezinarodni Kongres Sporovnich Lekaru a Spolecnosti pro Choroby Premeny Latkove v Berline," Casopis Lekaru Ceskych, Cis. 40-41. 1936; Mezinarodni Federace Sportovnich Lekaru a Jeji Schuze v Berline," Vestnik Ceskych Lekaru, Cis. 42, 1936.

(1941) in Buenos Aires, attracted delegates from Bolivia, Brazil, Columbia, Chile, Ecuador, Peru, Uruguay, and Venezuela. There is no such formal recognition of a profession of sport medicine in the English-speaking countries.

One of the stimulating aspects of the British Fitness Campaign was the evidence it presented of recognition on the part of the physical educator that a sound exercise program rests on biological and medical foundations, and the frank interest of the physician in the physical training scheme. The medical profession had respect for the fundamental worth of the fitness movement, and humility as concerned its own adequacy to push forward constructively the biological aspects of the program. It realized that it could not be of service to the fitness movement unless it trained itself. In the spring of 1939 the first British experimental introduction of physical training into the medical curriculum was reported.[10] Fourth- and fifth-year students in the London Hospital Medical School were taught the theory and practice of the more strictly educational aspects of physical training. In addition, they studied methods of conditioning for games and athletics. There were demonstrations of the physical education work advocated for persons of different ages. The army school of physical training discussed and demonstrated the rehabilitation work done with recruits unfit for service. The general conclusion reached was that even though the medical curriculum is already overladen, a well-organized short course in the theory and practice of physical education is a justifiable addition, since many technical medical problems were constantly arising in connection with the physical fitness movement.

If the physical educator hopes to be anything more than a skilled technician, interested essentially in the methods of teaching, he must bring to his practice of physical education a vastly more fundamental training than that which characterizes the average professional preparation. In 1936 MacDonald, a correspondent to the *British Medical Journal*, presented a thought-provoking explanation of the empiricism of physical training systems.[11] The principle on which these are based, he wrote, is illustrated as follows: "If a person is aware of something wrong with his mechanism he should go to some expert who will tell him what to *do* to put it right; whereas, of course, he should act on the opposite principle and go to an expert who will tell him what he *is doing* to bring about his wrongness, and who will show him *what not to do* to en-

10. "Physical Education in the Medical Curriculum," *Lancet*, (April 22, 1939), 942.

11. "Correspondence," *British M. J.*, (June 27, 1936), 1332.

able him to stop doing the thing that is causing the wrongness. Now all systems of what is generally known as physical culture are based on the former principle, and therefore, their only function is to deal with the symptoms and not with the origin of the misuse; and, as symptoms differ widely we have these diversified methods of curing them, while leaving their cause untouched."

There are those who would probably agree that the interim since the World War has seen American physical education drift steadily away from its biological foundations. The social sciences and education have occupied an increasingly important place in the training of the teacher. Preparation in the basic and medical sciences has been superficialized to the point of impotence, of value only for its qualitative cultural attributes in contradistinction to technical training of a disciplined and useful kind. Where it has been retained on a respectable academic level, the preliminary scientific preparation of the student has been thrown increasingly out of gear with the demands of the newer practical program. It seems that teacher preparation has been directed overwhelmingly toward that one contemporary function which physical education shares with so many other agencies in the school system. Stress has been placed upon recreational aims to the virtual exclusion of the kind of rigorous and systematic exercise known to have body-building attributes.

The emergency of this day has brought with it an ever-narrowing allocation of specific responsibilities to specifically trained groups. We are being called upon pre-eminently for one task—to improve physical vigor through the medium of exercise. First things must come first once again. Away with the romanticism of socio-psychological objectives and the intoxicating immensity of the responsibility we have assumed for the unfolding of the *whole man*, strong of body, fitted to group living along liberal social lines, happy and content, ocupying his leisure time with physically developmental recreational pursuits. True, we must continue to remain one of the important stop-gaps for leisure time, but we share that function with drama and the fine arts, with religion, letter, and handcrafts. In our zeal to defend our status in the academic community as equal to any and subservient to none, we have had no energy left for the concrete actualities by which we are now being judged. Those who exercise even a modicum of critical thinking are more interested in the analysis of our demonstrable results than in the study of our aspirations. ("The Contribution of Physical Education to Fitness," by F. A. Hellebrandt, M.D., Department of Physiology, University of Wisconsin. The Journal of Health and Physical Education, Vol. 13, No. 2, February, 1942, page 67. Abstracted by C. H. Keene, M. D.)

Child Health and the Selective Service Physical Standards,— This papers describes the physical status of a sample of selectees as observed 15 years ago, when the men were school children, and compares these findings for selectees who have now been accepted for military duty with similar observations on selectees who have now been disqualified (temporarily or permanently) because of physical or mental disability.

Sources of data for the report include:

1. The records of physical examinations of Hagerstown, Md., white school children made by the United States Public Health Service during the period 1922-1928.
2. Information regarding the acceptance or rejection of white selectees who appeared before the physicians of the local Draft Boards Nos. 1 and 2 of Washington County, Md.

The records of the past and present physical status of 411 selectees constitute the material for this study. Not all past records of the 411 selectees are complete. Of the 411 selectees, 225 (54.7 per cent) were rejected (i.e., placed in Class I-B or IV-F, because of some defect), a rejection percentage only slightly higher than that observed for the county at large. For this sample of the county, the rejection rate because of physical and mental defects is, therefore, 52 per cent.

The main purpose of this inquiry was to determine whether in childhood there were appreciable indications of the defects that have brought about the present disqualification of selectees.

Defective dentition is by far the most frequent cause of rejection; 62 out of 225 (27.6 per cent) were rejected because of this defect. It appears that men found to have defective dentition according to Selective Service standards had in childhood demonstrated a caries experience rate double that of men who passed the Selective Service physical examination.

In the sample of 225 rejected selectees there are 23 for whom the primary cause of disqualification was defective vision. In addition to these 23, the Selective Service physical examinations reveal that 26 other selectees disqualified for causes other than eye defects also had defective vision as defined by Selective Service standards.

At school examination, 70 per cent of the selectees of Class I-A demonstrated a visual acuity of 10/10, by the Snellen test, for the right eye; 69 per cent for the left eye; and 65 per cent for both eyes. Among selectees who later had defective vision, the corresponding percentages are 27, 33, and 18.

As in the case of dental defects, the records of the visual acuity

examination made 15 years before that for Selective Service apparently demonstrate that already in childhood boys who later were rejected or rejectable because of defective eyes had, as a group, markedly inferior vision as compared with that of boys who now are in Class I-A.

Of the 27 selectees disqualified because of some impairment of the cardio-vascular system, records of school physical examinations and medical histories were available for 20. At the time of the school examination some form of cardiac abnormality was recorded for 7, or about one-third of the 20 men. Among the 149 selectees in Class I-A for whom childhood physical examination records are available, none was stated to have any involvement of the cardio-vascular system at the time of the school examination.

Among the men disqualified for "defects of ears," the Selective Service examination uncovered 2 with a hearing impairment only, 1 with an atresia of the external auditory canal, and 12 with a perforated typmanic membrane. For these 12, the school examination records 15 years earlier revealed a discharging ear in 4 cases and a scarring of the typmanic membrane in 1. In the school record of the selectee with atresia of the external auditory canal this defect was noted. Among 150 selectees placed in Class I-A the school examination records revealed no abnormality of the tympanic membrane in 147. One child was found to have a discharging ear; 2 a scarred tympanic membrane.

Seven selectees were rejected for this group of causes. All of the selectees were negative for these conditions at the time of school examination. It should be noted, however, that neither a tuberculin test nor an X-ray was included in the school examination.

Venereal diseases, hernia, mental and nervous diseases, and defects of feet. Comparable information regarding the prevalence of these conditions is not included in the school examination record.

Weight records were available for 364 selectees who were examined as school children between 1922 and 1928. For each age a "middle range of weight" (i. e., the range within which the middle 50 per cent of the observations fall) was computed.

The data indicate that in selectees who as children were below the middle range in weight 60 per cent were rejected, whereas among selectees who had been above this range at the time of school examination only 45 per cent were rejected.

Of 232 whose nutritional state was considered good or excellent in the school examination, 47.5 per cent were rejected for military service 15 years later. However, among 91 children whose nu-

trition was regarded as fair to poor, 70.3 per cent were later found unacceptable for Selective Service.

Posture—At the time of school examination 132 of the selectees were judged by the physician as having good posture. Of these, 60.5 per cent were, 15 years later, placed in Class I-A and 39.5 per cent in Class I-B or IV-F. On the other hand, among the 168 selectees who in childhood were regarded as exhibiting fair or poor posture only 38.3 per cent were placed in Class I-A, and 61.4 per cent in Class I-B or IV-F.

It seems that in this sample the condition of the tonsils during childhood was not related to the development of the physical defects regarded by Selective Service standards as rendering the individual unfit for full military duty.

These findings indicate that a relatively large number of the selectees who have been rejected because of defective dentition and vision already gave evidence of the same defects 15 years ago when they were in elementary school. It is probable also that some of the selectees rejected for cardiovascular diseases and for ear defects could have been identified when in school. The data relative to the last-named conditions are not conclusive, but knowledge regarding their etiology and development support such a view. For most of the remaining physical causes of rejection one might suspect that some sign was also present in childhood. There is, however, no way of determining the validity of such an assumption, because the school examinations were not directed toward the discovery of the corresponding defects in childhood. The results of the present study suggest also that growth as measured by weight, posture, and the physician's estimate of the state of nutrition—all traits that are frequently examined to determine the health status of the child—are useful as crude predictive indexes of adult physical development. On the other hand, the condition of the tonsils in childhood does not appear to have much significance in relation to the future physical status of the young adult.

The findings of this study seem instead to reinforce the views held by many that disease in adulthood is often brought about by the cumulative effects over a long period of time of many pathologic conditions, many incidents, some of which take place and are are even perceived in early infancy.

It appears rather obvious, on consideration of the findings presented here, that it is imperative for our national concern to guard to the utmost the health of children. Public Health Reports, Dec. 12, 1941, Page 2365. Abstracted by S. B. McPheeters, M.D.

RETIREMENT

HASBROUCK DELAMATER, M.D.
Director of Health of the School District of St. Joseph, Mo.

(Dr. DeLamater was a charter member of the American Association of School Physicians—the parent of the American School Health Association, and has been a Fellow for three years), will have completed on next July 1st, twenty-five years and six months as Director of Health in St. Joseph School District. All told he has had thirty-five years in Public Health.

Dr. DeLamater started his work when school health work was in the pre-natal state, less than seventy cities in the whole United States having school "medical inspection" in 1907. He has kept the school health work in his district in a progressive and growing state. As a fellow in the A. S. H. A. he has passed on to the young and inexperienced many valuable suggestions.

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REVIEWS

"Supervision of Health and Physical Education As a Function of State Departments of Education,"*

JAMES F. ROGERS, M.D.

formerly Consultant in Hygiene, U. S. Office of Education.—The bulletin with the above title, recently prepared and published by the U. S. Office of Education, contains information with which every person interested in school health programs should be acquainted. A factual statement is presented of the historical development and legislative authority for health education and physical education in each state. This is followed by an outline, again of each state separately, of the organization for supervising and directing state programs and a summary of objectives, activities and accomplishments.

The bulletin gives due consideration to inter-relationships between state departments of education, and other state agencies. The summary shows that in many states there is close cooperation between state education and state health agencies.

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* Bulletin 1940—No. 6—Monograph No. 14. U. S. Office of Education, Federal Security Agency. Obtainable from Government Printing Office. Price 15 cents.

In addition to factual material describing programs and organization in each state, Dr. James F. Rogers, the author, has included interesting observations relating to the place of health in programs of education, helpful suggestions concerning legislation, and clarifying comments about terminology.

In summarizing state legislation relating to health, Dr. Rogers states "Looking over the whole field of legislation we find a remarkable variety of permissions and requirements and it would seem that by a comparison of these laws, and experiences under these laws, the State supervisors might sometime work out recommendations for legislation which would be of most help to them and which would permit of full promotion in all fields of work. It is quite evident that, under certain conditions of collective consciousness, laws are unnecessary, but, unfortunately, such conditions do not usually exist or are subject to change."

Because of Dr. Rogers' years of experience and his unequalled opportunity to observe programs throughout all parts of the country, his suggestions for improving state supervision in health education and physical education deserve careful consideration. He recommends that,

"There should be a division or section in the State department of education devoted to health work and physical education, with specially prepared personnel in each of the following fields:

"(a) Health education (including instruction in health and safety, and also other activities for the welfare of the child which should be carried on by the teacher. Unless a special agent is located in home economics, the management of school feeding would be included in this field of supervision).

"(b) Physical education (including recreation and the general control of interscholastic athletics).

"(c) Health service (including besides medical, dental, and nursing activities, the safety and sanitation of the school plant and of transportation facilities).

"We have placed health education first because of its primary historical and general importance, and because it includes the truly curricular material of physiology, hygiene, and safety.

"This does not mean that the activities embraced under the term Physical Education are less important than those labeled Health Education, but they are certainly not more important, and it is because of the seeming neglect of the promotion of health instruction that many State departments of health have assumed its direction.

"The division mentioned in the first paragraph should, because of its varied functions, some of which are not instructional, be made directly responsible to the superintendent or deputy superintendent, according to the total staff of the department. However,

if only (a) and (b) are included in the work of the department, the section might well be located in the division of instruction."

In gathering and disseminating information regarding health education and physical education programs in various States, the U. S. Office of Education is performing an extremely valuable service. The helpfulness and usefulness of this bulletin leads us to hope that further studies will be made and the results published. Charles C. Wilson, M.D.

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How to Grow Food for Your Family, *Samuel R. Ogden.* A. S. Barnes and Co., New York, 1942, pages 139, Price $2.00.

Here is a timely book. In the enthusiasm for "growing food to win the war," an enthusiasm which should be encouraged, many people with little or no rural or agricultural background are about to rush "back to the soil."

Here is simplified and practical information for both beginners and for the more experienced. After a preliminary argument on "Why a garden" the author discusses the soil, planting and care, use of the things grown, cooking, canning and pickling (including the making of "Liberty Cabbage") and an estimate of costs and income.

Even if there be no "net income" (and there should be) a most healthful outdoor activity is offered that presents physical, mental, esthetic, and "morale" profits in large degree. C. H. Keene, M. D.

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MEETINGS

National Education Association at Denver, Colorado, June 27-July 2, 1942.

American School Health Association and the American Public Health Association at St. Louis, Missouri, October 26-30, inclusive, 1942; headquarters of the **American School Health Association** at **Hotel Statler.**

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